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EXAMINER	
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ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	08/619,649	DRMANAC, RADOJE	
	Examiner	Art Unit	
	BJ Forman	1634	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 January 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *97 and 157-176* is/are pending in the application.

4a) Of the above claim(s) *176* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *97 and 157-175* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Status of the Claims

1. This action is in response to papers filed 2 January 2008 in which claim 97 was amended and a Terminal Disclaimer was submitted. The amendments have been thoroughly reviewed and entered. The previous objection to claim 176 is withdrawn in view of the current claim listing defining the claim as "withdrawn".

The previous rejections in the Office Action dated 30 August 2007 under obviousness-type double patenting are withdrawn in view of the Terminal Disclaimer.

The previous rejections under 35 U.S.C. 112, first paragraph, 35 U.S.C. 102 and 35 U.S.C. 103 are maintained. Applicant's arguments have been thoroughly reviewed and are discussed below.

This rejection is made Non-Final so as to clarify the grounds for rejections.

Claims 97 and 157-175 are under prosecution.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 97 and 157-175 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

In papers filed 20 December 2005, new claims 157 and 167 were added to define the microchips as "separated by physical barriers". The amendments filed 2 July 2007 add the

"physical barriers" to independent claims 97 and 166. Applicant points to page 40, lines 21-25 and page 42, lines 7-19 to support the claim of physical barrier. The passage on page 40 defines physical separation and hydrophobic separation:

> The arrays may be separated physically from each other or by hydrophobic surfaces. One possible way to utilize the hydrophobic strip separation is to use technology such as the Iso-Grid Microbiology System produced by QA Laboratories, Toronto, Canada.

The passage on page 42 merely defines methods of making arrays:

> Two basic problems have to be solved. Manipulation with small (2-3 mm) chips, and parallel execution of thousands of the reactions. The solution of the invention is to keep the chips and the probes in the corresponding arrays. In one example, chips containing 250,000 9-mers are synthesized on a silicon wafer in the form of 8x8 mM plates (15 ~M/oligonucleotide, Pease *et al.*, 1994) arrayed in 8x12 format (96 chips) with a 1 mM groove in between. Probes are added either by multichannel pipette or pin array, one probe on one chip. To score all 4000 6-mers, 42 chip arrays have to be used, either using different ones, or by reusing one set of chip arrays several times.

The cited passages teach physical separation and teach examples of physical barriers including hydrophobic strips and grooves, the hydrophobic strips and grooves being species of the generic physical barriers. However, neither the cited passages nor the entire specification defines what is encompassed by the generic physical barrier as recited in Claims 97 and 166. Therefore, the specification does not support the instantly claimed invention.

This rejection may be over come by replacing "physical barrier" with "physically separated" as described in the specification.

Response to Arguments

4. Applicant points to the specification wherein hydrophobic grids, hydrophobic strips and grooves are described. Applicant also points to the prior art cited in the specification and by

the office to illustrate that one of skill in the art would have know about physical barriers. From this, Applicant asserts that based on the intended use of the invention one of skill would understand that applicant was in possession of the invention as claimed. The argument has been considered but is not found persuasive. As stated above, the specification clearly teaches species of the claimed genus i.e. physical barriers. However, it is maintained that the specification does not provide sufficient description so as to support the broad genus of physical barriers encompassed by the claim.

ii) For each claim drawn to a genus:

The written description requirement for a claimed genus may be satisfied through sufficient description of a representative number of species by actual reduction to practice (see i)(A), above), reduction to drawings (see i)(B), above), or by disclosure of relevant, identifying characteristics, i.e., structure or other physical and/or chemical properties, by functional characteristics coupled with a known or disclosed correlation between function and structure, or by a combination of such identifying characteristics, sufficient to show the applicant was in possession of the claimed genus (see i)(C), above). See Eli Lilly, 119 F.3d at 1568, 43 USPQ2d at 1406.

A "representative number of species" means that the species which are adequately described are representative of the entire genus. Thus, when there is substantial variation within the genus, one must describe a sufficient variety of species to reflect the variation within the genus. The disclosure of only one species encompassed within a genus adequately describes a claim directed to that genus only if the disclosure "indicates that the patentee has invented species sufficient to constitute the gen[us]." See Enzo Biochem, 323 F.3d at 966, 63 USPQ2d at 1615; Noelle v. Lederman, 355 F.3d 1343, 1350, 69 USPQ2d 1508, 1514 (Fed. Cir. 2004) (Fed. Cir. 2004)("[A] patentee of a biotechnological invention cannot necessarily claim a genus after only describing a limited number of species because there may be unpredictability in the results obtained from species other than those specifically enumerated."). "A patentee will not be deemed to have invented species sufficient to constitute the genus by virtue of having disclosed a single species when ... the evidence indicates ordinary artisans could not predict the operability in the invention of any species other than the one disclosed." In re Curtis, 354 F.3d 1347, 1358, 69 USPQ2d 1274, 1282 (Fed. Cir. 2004)(Claims directed to PTFE dental floss with a friction-enhancing coating were not supported by a disclosure of a microcrystalline wax coating where there was no evidence in the disclosure or

anywhere else in the record showing applicant conveyed that any other coating was suitable for a PTFE dental floss.) (see MPEP § 2163)

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 97, 159-160, 166, 169-170 are rejected under 35 U.S.C. 102(a) as being anticipated by Datta et al (Applied and Environmental Microbiology, Jan. 1993, 59(1): 144-149).

Regarding Claim 97 and 166, Datta et al disclose a support comprising an array of microchips (Fig. 1), the microchips each comprising different oligonucleotide probes immobilized on the surface and separated by a physical barrier i.e. space (page 145, right column and page 146, Fig. 1).

Claim 97 has been amended to define the arrayed oligonucleotides at different locations". Each spot in both arrays of Fig. 1 clearly illustrate different locations.

Regarding Claim 159 and 169, Datta et al disclose the support wherein the microchips are arranged in rows and columns (Fig. 1).

Regarding Claim 160 and 170, Datta et al disclose the support wherein the microchips are positioned for use with a micropipette (Fig. 1).

Response to Arguments

7. Applicant asserts that Claim 97 requires a support on which the microchips are arrayed. Applicant further asserts that Datta differs from the claimed invention because the reference teaches a membranes/filters for dot blot hybridization but does not teach or suggest miniaturized-scale conditions.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., miniaturized scale) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). The claims do not define any limitations on size or surface area of the microchips, support or spot of oligonucleotides. Therefore the arguments are not commensurate in scope with the claims.

Applicant further asserts that the claimed microchip on the support, as described in the specification, differs from the membrane/filter of Datta. It is noted that the cited passages describe embodiments not claimed .e.g. 64 rows by 64 columns. Applicant further asserts that the claim requires arrayed oligonucleotides on a microchip that is then arrayed onto a support. The assertion is noted however the claims are not so limited. Therefore the arguments are not commensurate in scope with the claims. Furthermore, even if the claim required two distinct, separable elements (which the claim does not) any table or lab bench upon which the membrane/filter is placed would be encompassed by the broadly claimed support.

It is maintained that Datta teaches all elements of the broadly claimed support.

8. Claims 97, 157-160, 163-170 and 173-175 are rejected under 35 U.S.C. 102(e) as being anticipated by Winkler et al (U.S. Patent No. 5,677,195, filed 20 November 1992).

Regarding Claim 97, Winkler et al disclose a support comprising an array of microchips, each having an array of oligonucleotide probes immobilized thereon (i.e. the support comprises an array of regions (#1004) wherein each region comprises an array (i.e. plurality) of probes immobilized thereon (Column 7, lines 10-41; Column 16, lines 22-53; and Fig. 12). Winkler et al disclose the support wherein the microchips are separated by physical barriers (Column 22, lines 8-14). Winkler et al define the region as having a predominate species of probe (Column 7, lines 31-38). In other words, the region has an array of probes immobilized thereon as recited in the instant claims.

Claim 97 has been amended to define the arrayed oligonucleotides at different locations". Winkler et al teach arrayed in situ synthesis wherein the oligonucleotides are end-attached to the chip surface via functional group and/or linker (Column 24). Because each oligonucleotide is attached to the surface via a functional group, each oligonucleotide must be attached at a different location because two functional groups cannot be located in the same location.

Regarding Claim 157, Winkler et al disclose the support wherein the microchips are separated by physical barriers e.g. grooves (Column 2, lines 24-34).

Regarding Claim 158, Winkler et al disclose the support wherein the microchips are separated by hydrophobic surface (Column 22, lines 8-14).

Regarding Claim 159, Winkler et al disclose the support wherein the microchips are arranged in multiple rows and columns (Fig. 12).

Regarding Claim 160, Winkler et al disclose the support wherein the microchips are positioned for use with a multichannel pipette (Column 18, lines 20-37 and Column 20, lines 34-40).

Regarding Claim 163, Winkler et al disclose the support wherein the array of microchips comprises more than 256 probes i.e. more than 256 regions (Column 17, lines 49-53).

Regarding Claim 164, Winkler et al disclose the support wherein the probes are between 4 and 9 bases (Column 17, lines 55-57).

Regarding Claim 165, Winkler et al disclose the support wherein the probes are synthesized on the support via light-directed synthesis (Abstract).

Regarding Claim 166, Winkler et al disclose a support comprising an array of microchips, each having an array of oligonucleotide probes immobilized thereon (i.e. the support comprises an array of regions (#1004) wherein each region comprises an array (i.e. plurality) of probes immobilized thereon (Column 7, lines 10-41; Column 16, lines 22-53; and Fig. 12). Winkler et al disclose the support wherein the microchips are separated by physical barriers (Column 22, lines 8-14). Winkler et al define the region as having a predominate species of probe (Column 7, lines 31-38). In other words, the region has an array of probes immobilized thereon as recited in the instant claims.

Regarding Claim 167, Regarding Claim 157, Winkler et al disclose the support wherein the microchips are separated by physical barriers e.g. grooves (Column 2, lines 24-34).

Regarding Claim 168, Winkler et al disclose the support wherein the microchips are separated by hydrophobic surface (Column 22, lines 8-14).

Regarding Claim 169, Winkler et al disclose the support wherein the microchips are arranged in multiple rows and columns (Fig. 12).

Regarding Claim 170, Winkler et al disclose the support wherein the microchips are positioned for use with a multichannel pipette (Column 18, lines 20-37 and Column 20, lines 34-40).

Regarding Claim 173, Winkler et al disclose the support wherein the array of microchips comprises more than 256 probes i.e. more than 256 regions (Column 17, lines 49-53).

Regarding Claim 174, Winkler et al disclose the support wherein the probes are between 4 and 9 bases (Column 17, lines 55-57).

Regarding Claim 175, Winkler et al disclose the support wherein the probes are synthesized on the support via light-directed synthesis (Abstract).

Response to Arguments

9. Applicant asserts that the claims require an array of microchips on a support. The argument is similar to that provided for Datta. Applicant appears to assert that the claims require two distinctly, individually constructed elements i.e. the oligos are arrayed on a surface (microchip) and multiples of the arrayed microchips are then placed onto a second surface (support). It is maintained that the claims are not so limited. The claims merely require a support comprising an array of microchips, each of which has an array of oligos.

Applicant further asserts that the instant specification provides a limiting definition for the claimed array. It is maintained that the specification does not so limit the claims. The specification merely provides preferred embodiments of the invention.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

11. Claims 162 and 172 are rejected under 35 U.S.C. 103(a) as being unpatentable over Winkler et al (U.S. Patent No. 5,677,195, filed 20 November 1992) in view of Augenlicht (U.S. Patent No. 4,981,783, issued 1 January 1991).

Regarding Claims 162 and 172, Winkler et al disclose a support comprising an array of microchips, each having an array of oligonucleotide probes immobilized thereon (i.e. the support comprises an array of regions (#1004) wherein each region comprises an array (i.e. plurality) of probes immobilized thereon (Column 7, lines 10-41; Column 16, lines 22-53; and Fig. 12). Winkler et al define the region as having a predominate species of probe (Column 7, lines 31-38). In other words, the region has an array of probes immobilized thereon as recited in the instant claims.

Winkler et al further teach the support is produced using a conventional pipetting instrument (Column 20, lines 34-40) but they are silent regarding an 8 by 12 format. However, Augenlicht teach pipetting instruments wherein the preferred instruments produce an 8 by 12 pattern (Column 13, lines 55-60). Augenlicht further teach these instruments are preferred because they are automated and produce precisely defined positions. It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to apply the 8 by 12 format of Augenlicht to the arrays of Winkler et al for the expected benefit of providing precisely defined regions as desired in the art (Augenlicht, Column 13, lines 55-60).

Response to Arguments

12. Applicant reiterates the arguments presented above regarding Winkler. Applicant further argues that Augenlicht cannot cure the deficiencies of Winkler. The argument has been considered but is not found persuasive for the reasons discussed above regarding Winkler.

13. Claims 161 and 171 are rejected under 35 U.S.C. 103(a) as being unpatentable over Winkler et al (U.S. Patent No. 5,677,195, filed 20 November 1992) in view of Stratagene, 1988, page 39).

Regarding Claims 161 and 171, Winkler et al disclose a support comprising an array of microchips, each having an array of oligonucleotide probes immobilized thereon (i.e. the support comprises an array of regions (#1004) wherein each region comprises an array (i.e. plurality) of probes immobilized thereon (Column 7, lines 10-41; Column 16, lines 22-53; and Fig. 12). Winkler et al define the region as having a predominate species of probe (Column 7, lines 31-38). In other words, the region has an array of probes immobilized thereon as recited in the instant claims.

Winkler et al further teach the array is used with labeled probes and buffers for hybridization analysis (Column 25, lines 6-30) but they are silent regarding the array and hybridization components combined into a kit format.

However, Stratagene catalog teaches a motivation to combine reagents into kit format (page 39).

It would have been *prima facie* obvious to one having ordinary skill in the art at the time the invention was made to combine the method of Winkler et al into a kit format as discussed by Stratagene catalog since the Stratagene catalog teaches a motivation for combining reagents of use in an assay into a kit, "Each kit provides two services: 1) a variety of different reagents have been assembled and pre-mixed specifically for a defined set of experiments. 2) The other service provided in a kit is quality control" (page 39, column 1).

Response to Arguments

14. Applicant reiterates the arguments presented above regarding Winkler. Applicant further argues that Stratagene cannot cure the deficiencies of Winkler. The argument has been considered but is not found persuasive for the reasons discussed above regarding Winkler.

15. Claims 97, 158-160, 163-166, 168-170 and 173-175 are rejected under 35 U.S.C. 103(a) as being unpatentable over Southern et al (Genomics, 1992, 13: 1008-1017) in view of Peterkin et al (Food Microbiology, 1989, 6:281-284).

Regarding Claim 97 and 158, Southern et al disclose a support comprising an array of microchips, each having an array of oligonucleotide probes immobilized thereon (Fig. 3, figure legend, line 1).

Southern teaches each array is in one of four quadrants on the surface (Fig. 3). The instant claims merely require that the arrays are physically separated. The four-quadrant arrangement is encompassed by the physical separation because a quadrant defines a physical location of the surface. Assignment of an array to a quadrant defines a boundary between quadrants, the boundary being the point of physical separation. In other words, if the arrays are not physically separated, they cannot be in different quadrants. Because the reference specifically teaches quadrants for each array, the arrays are physically separated by the quadrant boundary.

Southern does not specifically teach a physical or hydrophobic barrier. However, hydrophobic barriers separating hybridization regions on a support were well known and routinely practiced in the art at the time the instant invention was made as taught by Peterkin et al who teach that the gridded supports lessens the labor requirements to identify sequences of interest (page 281, left column). It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to apply the gridded support of Peterkin et al to the four-quadrant support of Southern. One of ordinary skill in the art would have been motivated to do so for the labor-saving benefits as taught by Peterkin (page 281, left column).

Regarding Claim 159, Southern et al disclose the support wherein the microchips are arranged in multiple rows and columns (i.e. two rows and two columns, Fig. 3).

Regarding Claim 160, Southern et al disclose the support wherein the microchips are positioned for use with a multichannel pipette (Fig. 3). The arrays of Southern are arranged in two rows of two columns. While Southern does not teach use of a multichannel pipette, the courts have stated that a claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim. Ex parte Masham, 2 USPQ2d 1647 (Bd. Pat. App. & Inter. 1987). Southern teaches the structural elements of the claim and therefore, anticipates the support of Claim 160.

Regarding Claim 163, Southern et al disclose the support wherein the array of microchips comprises more than 256 probes i.e. each of the four microchips has 256 probes. Hence, the support of Claim 97 has more than 256 probes per array as claimed.

Regarding Claim 164, Southern et al disclose the support wherein the probes are between 4 and 9 bases (Fig. 3).

Regarding Claim 165, Southern et al disclose the support wherein the probes are synthesized on the support (page 1009, left column). Southern et al do not teach light-directed synthesis. However, the courts have stated that "even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985) see MPEP 2113. Because determination of patentability is based on the product and because Southern et al teach the product, the process of making the product as recited in the claim does not define the product over that of Southern.

Regarding Claim 166 and 168, Southern et al disclose a support comprising an array of microchips, each having an array of oligonucleotide probes immobilized thereon (Fig. 3, figure legend, line 1).

Southern does not specifically teach a physical or hydrophobic barrier. However, hydrophobic barriers separating hybridization regions on a support were well known and routinely practiced in the art at the time the instant invention was made as taught by Peterkin et al who teach that the gridded supports lessens the labor requirements to identify sequences of interest (page 281, left column). It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to apply the gridded support of Peterkin et al to the four-quadrant support of Southern. One of ordinary skill in the art would have been motivated to do so for the labor-saving benefits as taught by Peterkin (page 281, left column).

Regarding Claim 169, Southern et al disclose the support wherein the microchips are arranged in multiple rows and columns (i.e. two rows and two columns, Fig. 3).

Regarding Claim 170, Southern et al disclose the support wherein the microchips are positioned for use with a multichannel pipette (Fig. 3). The arrays of Southern are arranged in two rows of two columns. While Southern does not teach use of a multichannel pipette, the courts have stated that a claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim. Ex parte Masham, 2 USPQ2d 1647 (Bd. Pat. App. & Inter. 1987). Southern teaches the structural elements of the claim and therefore, anticipates the support of Claim 160.

Regarding Claim 173, Southern et al disclose the support wherein the array of microchips comprises more than 256 probes i.e. each of the four microchips has 256 probes. Hence, the support of Claim 97 has more than 256 probes per array as claimed.

Regarding Claim 174, Southern et al disclose the support wherein the probes are between 4 and 9 bases (Fig. 3).

Regarding Claim 175, Southern et al disclose the support wherein the probes are synthesized on the support (page 1009, left column). Southern et al do not teach light-directed synthesis. However, the courts have stated that "even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985) see MPEP 2113. Because determination of patentability is based on the product and because Southern et al teach the product, the process of making the product as recited in the claim does not define the product over that of Southern.

Response to Arguments

16. This Office Action is made Non-Final to clarify that this rejection is under 35 U.S.C. 103. Applicant asserts that Southern cannot anticipate the instantly claimed invention. The argument is not found persuasive because Peterkin is relied upon for the single element missing from the Southern reference i.e. physical separation between the microarrays.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BJ Forman whose telephone number is (571) 272-0741. The examiner can normally be reached on 6:00 TO 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ram Shukla can be reached on (571) 272-0735. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1634

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

BJ Forman
Primary Examiner
Art Unit 1634

/BJ Forman/
Primary Examiner, Art Unit 1634